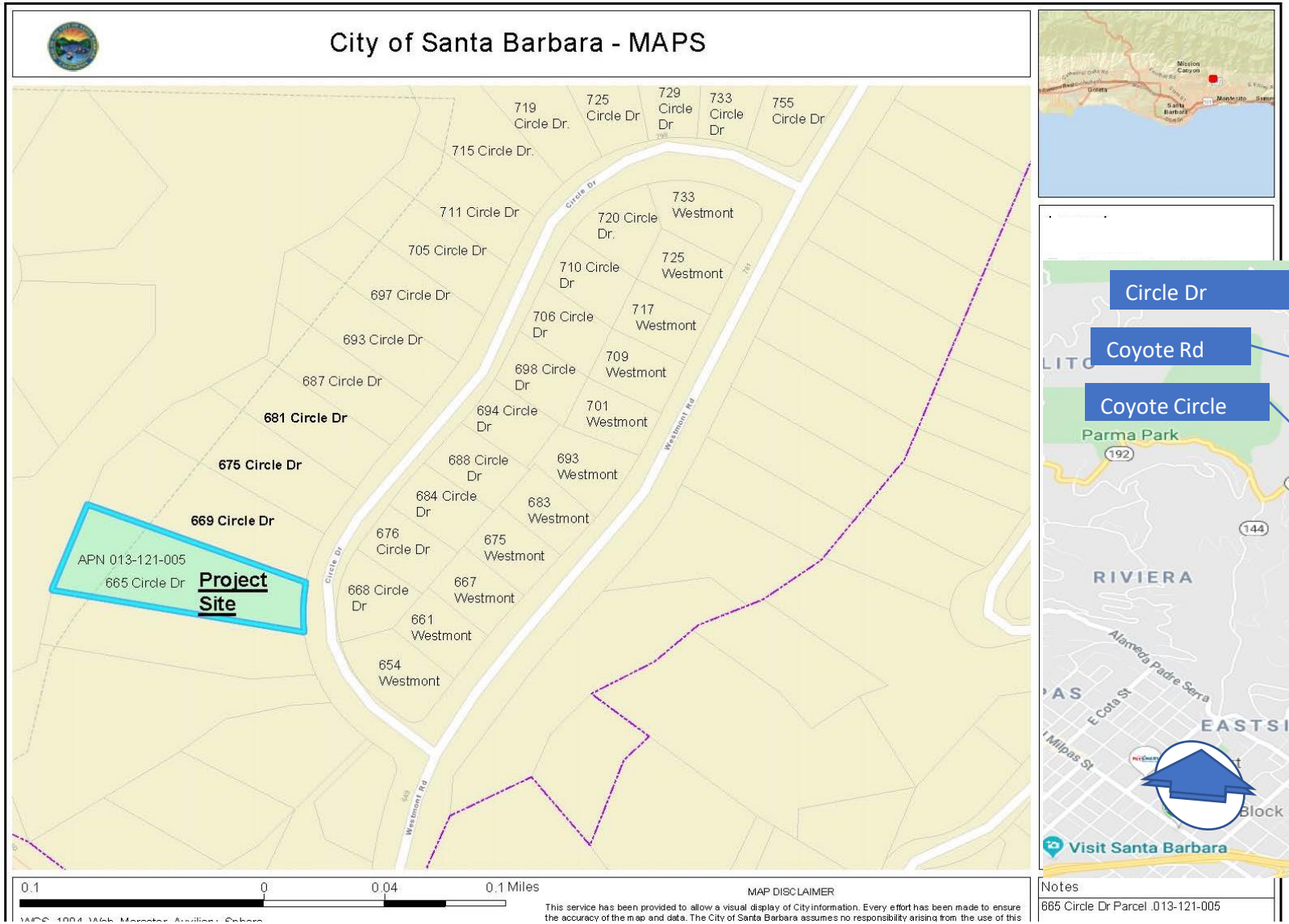
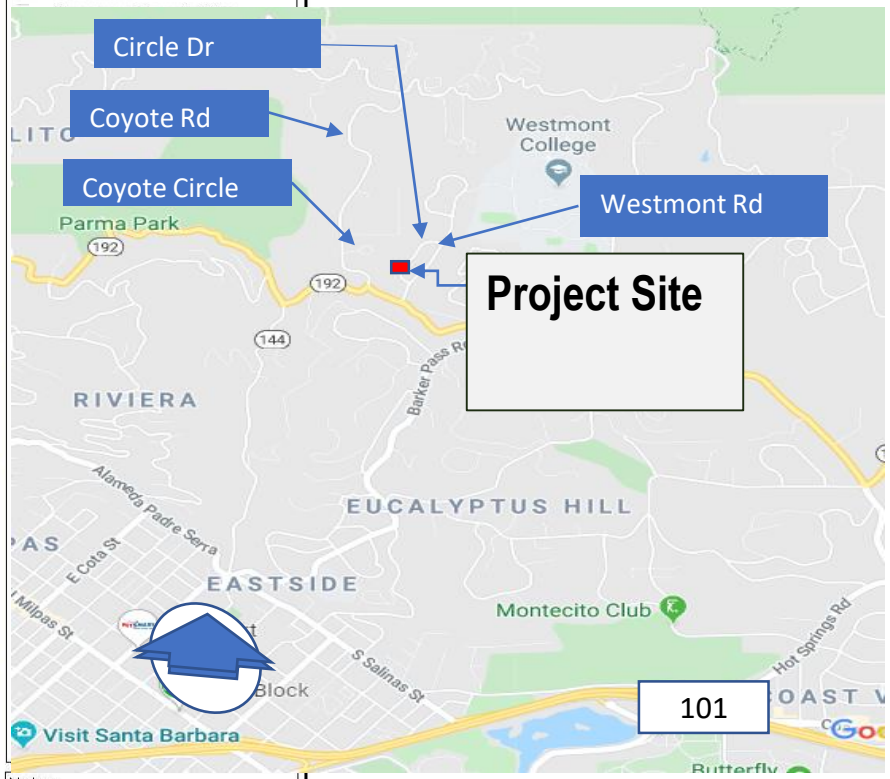
Vicinity Map
665 Circle Drive - Slager Residence

Re-Submittal for Standing Seam Metal Panel Roof – gray- replacing existing Cal Shake Roof.





Project site and surrounding Standing Seam Metal Roofs

- Original Home Design
- Modest Home & Structure compatible with Neighborhood
- Colors consistent with earthen tones

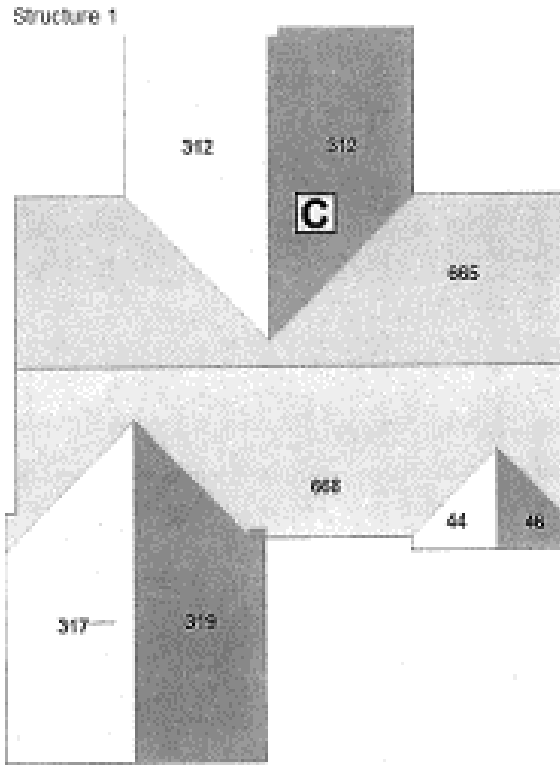
665 Circle Dr. Project Site - Existing Roof

SkyMeas re™ Roof

665 Circle Dr, Santa Barbara, CA 93108

Order I.D.:
445807

Area Measurements Diagram



WASTE FACTOR TABLE (in squares)

Total Area	5%	10%	15%	17%	20%	22%	25%
26.82	28.16	29.50	30.84	31.38	32.18	32.72	33.53

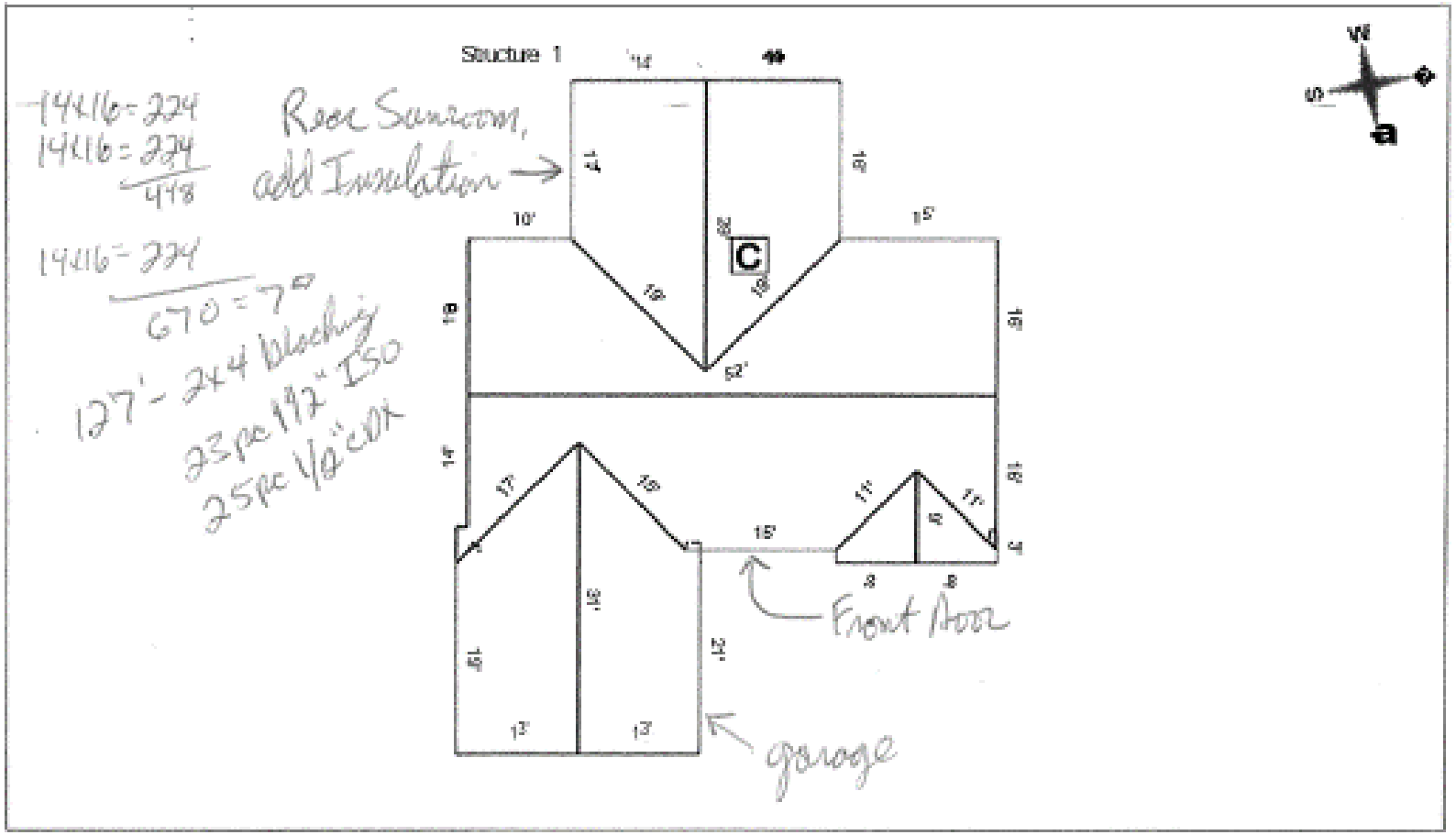
skyMeasure™ Roof

665 Circle Dr, Santa Barbara, CA 93108

Order I.D.:
445807

Length Measurements Diagram

Measurements rounded to the nearest foot

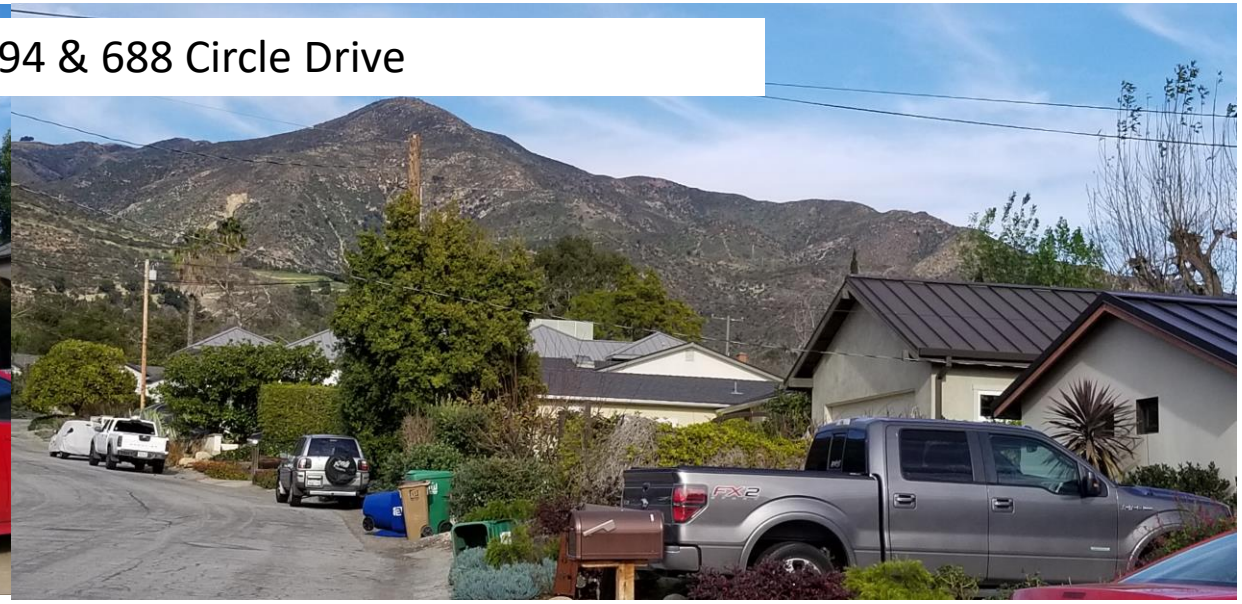


LINEAR MEASUREMENTS (in feet)							
Ridges	Hips	Valleys	Rakes	Eaves	Rakes + Eaves	Apron Flashing	Step Flashing
122	0	94	137	117	254	2	3

- Proposed Roofing Consistent with Neighborhood context.
- Existing metal rooves next to shingles
- Character of Slope & Landscape diminishes view of roof tops.

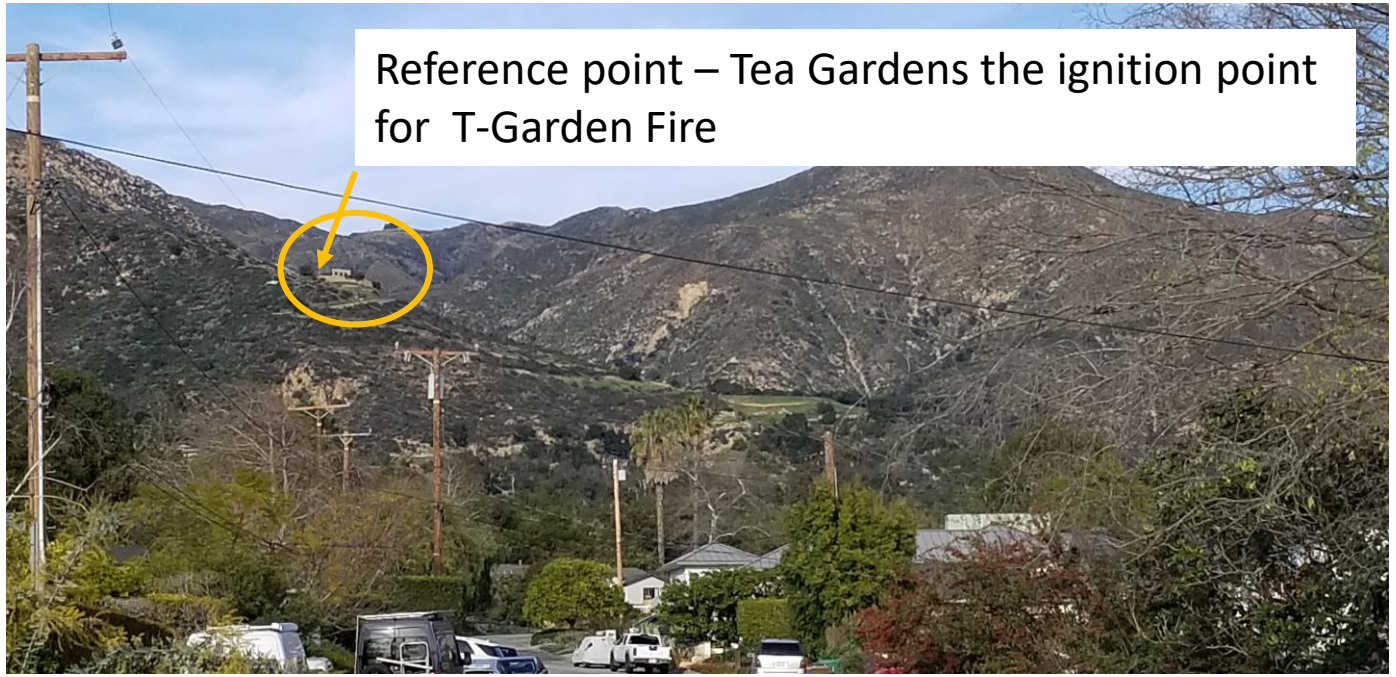
Roof view looking NE from Project Site

Metal Rooves 694 & 688 Circle Drive



Existing Neighborhood Context

- Slope & Landscape diminishes view of other roof tops
- Proposed roof fire resistant and improves safety of wildland interface neighborhood.
- Roof color fitting with natural earthen tones.



Circle Dr Neighborhood Context and metal roofing styles increasing resiliency.

- **711 Circle Dr.**

675 Westmont Drive

Gray Roof Tops in Neighborhood Setting

688 Circle Dr.

762 Westmont Dr.

- 740 Westmont Dr.

Various Adjacent Roof Tops in Neighborhood Setting

ROOFING SUBMITTAL

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MCELROY MEDALLION LOK 1¾" x ~~18"~~ 16"
METAL ROOF SUBMITTAL

METAL ROOF: MCELROY MEDALLION-LOK 1¾" X 18" PANEL

PRODUCT CUTSHEETS/DATA
STRIATION RECOMMENDATIONS AND OIL CANNING INFO
MCELROY METALS: COLOR CHART
- SRV AND LRV CHARTS

MEDALLION-LOK INSTALLATION DATA (STANDARD DETAILS)
ASTM & UL TESTING DATA
WARRANTY INFORMATION - OPERATIONS & MAINTENANCE
WARRANTY INFORMATION - KYNAR FINISH

ROOF UNDERLAYMENT: FIRESTONE CLADGARD SA (CLASS A)

PRODUCT CUTSHEET/DATA
TECHNICAL INFORMATION
CLASS A METAL ROOF ASSEMBLY TESTING DATA

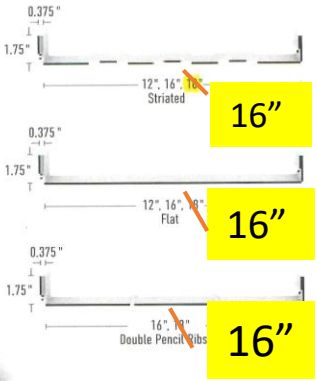
FOR ANY QUESTIONS REGARDING THIS SUBMITTAL, PLEASE CONTACT:

CORY MOSSMAN, project manager
CMOSSMAN@WICKSROOFING.COM

Medallion-Lok

Medallion-Lok is a snap-together architectural panel with structural capabilities that features a rigid 1.75" standing seam. Medallion-Lok is McElroy Metal's most popular snap-together panel and has been utilized to add beauty and function on projects all across the country.

Panel Options



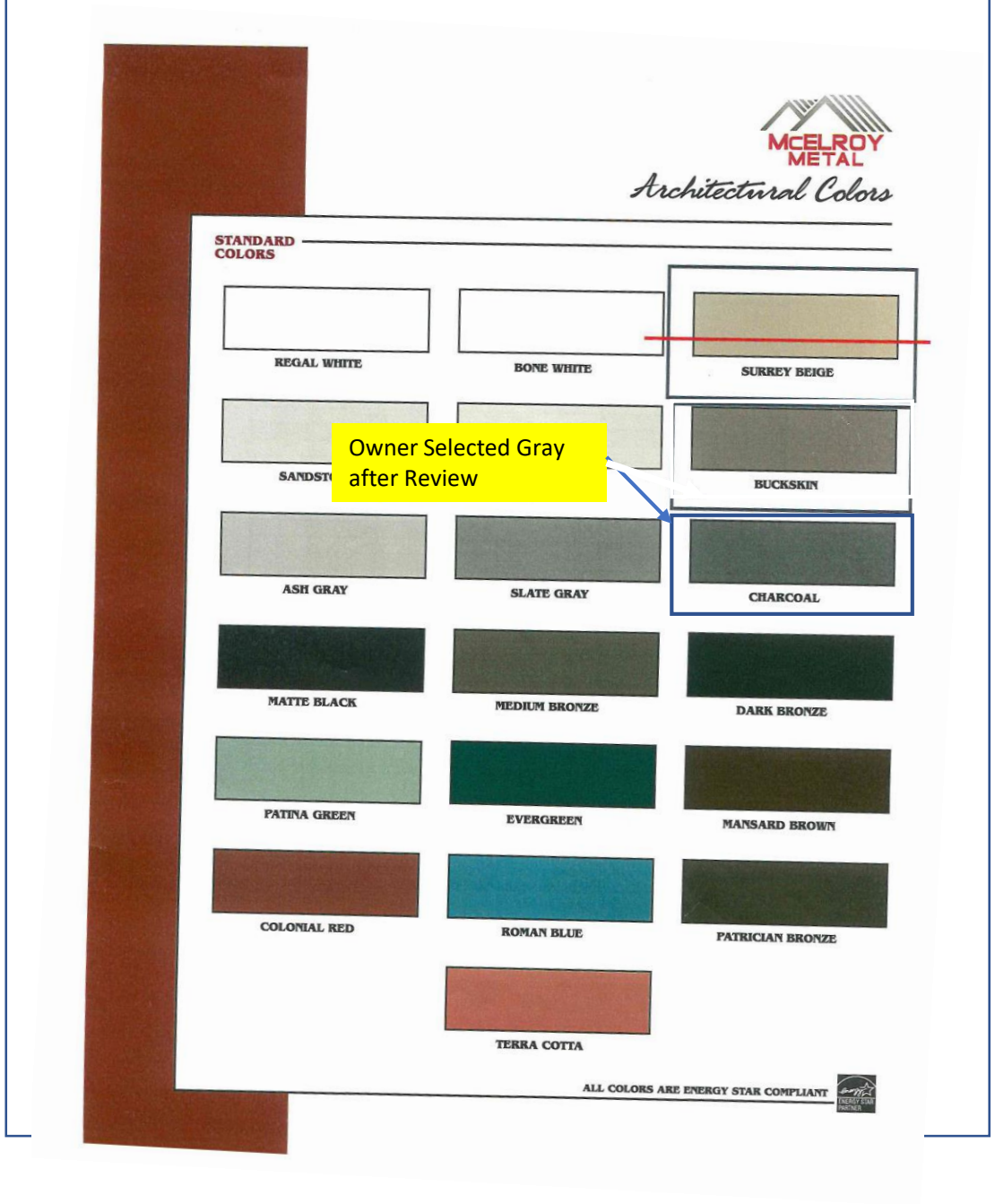
Note: Striated panels are recommended as they reduce the appearance of oil canning

Details
- Factory formed eave notch upon request in: Clinton, Peachtree City, and Sunnyvale
- Factory applied sealant
- Minimum slope: 3:12
- Can be installed over solid deck or open framing

Panel Options
- Panel width 12", 16" & ~~18"~~
- Panel configurations: striated, ribbed or flat pan (striated recommended)
- Coating: Kynar 500 ® (PVDF)
- Substrate:
  - Standard 24 gauge Galvalume ®
  - Optional 22 gauge Galvalume
  - .032 and .040 aluminum

Testing Data
- Fire Rating: Class A
- Uplift Test: UL580 Class 90 ASTM E1592
- Air Infiltration: ASTM E1680
- Water Infiltration: ASTM E1646
- Class 4 Impact Resistance: UL 2218
- Florida State Approval: 1747.5 and 1832.7
- Fire Resistance: UL 263
- Miami Dade Approval: NOA#13-0430.06
- ICC-ES Approval: ESL-1082
- For any available Test Data, Section Properties or Load Tables, please visit our download section at www.mcelroymetal.com

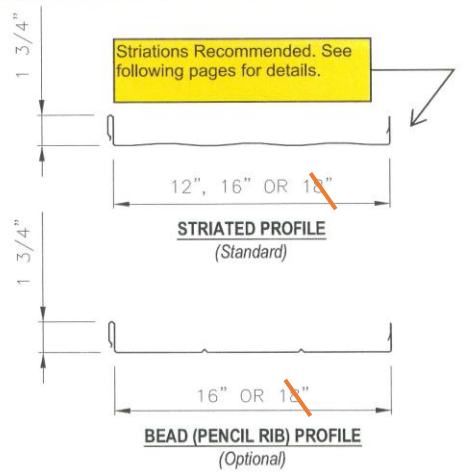
Oil canning (pan wave) is a natural occurrence in metal panels and is not a cause for panel rejection.

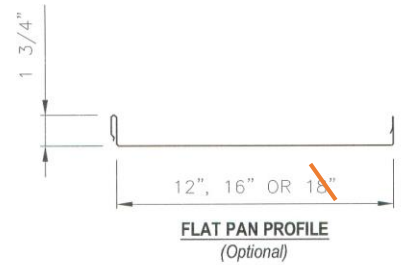


McELROY METAL, INC

www.mcelroymetal.com

Medallion-Lok Panel | Product Data





Applications
Snap Seamed roof panel used on slopes down to 3:12. Continuous length up to 75'. Please inquire for longer lengths.

Substrates
Plywood, Metal Deck, Rigid Insulation/Metal Deck or Open Framing.

Material
Standard - 24 GA. ASTM A792 (50 ksi steel) AZ55 - Bare
AZ50 - Painted
Optional - 22 GA. ASTM A792 (50 ksi steel) AZ55 - Bare
AZ50 - Painted
and .032 & .040 Aluminum (Sunnyvale Plant Only)

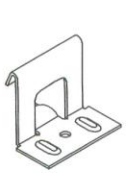
Manufacturing
Roll formed in factory.

Finishes
Acrylic Coated Galvalume®
Fluoropolymer (Kynar 500® PVDF resin-based)

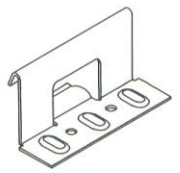
Pan Conditions
Flat Pan, Pencil Ribbed or Striated
Oil canning is inherent in all metal panels and is not cause for panel rejection. A signed oil canning acknowledgement will be required for all orders prior to production.

Testing *
Uplift: UL 580 Class 90, ASTM E1592
Air & Water Infiltration: ASTM E1680, and ASTM E1646.
Fire Resistance: UL 263 & UL 790 Class A
Impact Testing: UL 2218 Class 4
Miami Dade Approval: NOA# 13-0430.06
Florida Product Approval: FL 1747.5 & FL 1832.7
Testing and Approvals are product specific. Please inquire for details.

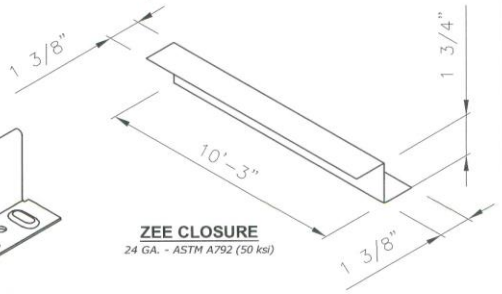
NOTE:
All data represented on this sheet may not be applicable to all widths and gauges. Please contact McElroy Metal for more information.



STANDARD CLIP
16 GA. Galvanized G90 - ASTM A653 (50 ksi)



UL-90 CLIP
16 GA. Galvanized G90 - ASTM A653 (50 ksi)



ZEE CLOSURE
24 GA. - ASTM A792 (50 ksi)

REVISION DATE: 7/25/18

MEDLOK PAGE 1 of 1

MCELROY METAL

Architectural Colors

Paint Specifications

COLOR	REFLECTANCE	EMISSIVITY	SRI
ALMOND	0.60	0.84	70
ASH GRAY	0.39	0.84	41
BONE WHITE	0.71	0.85	86
BRANDYWINE	0.26	0.85	24
BRITE RED	0.42	0.84	45
BUCKSKIN	0.33	0.86	41
CHAMPAGNE METALLIC	0.38	0.80	38
CHARCOAL	0.32	0.85	32
COLONIAL RED	0.33	0.85	34
COPPER PENNY	0.49	0.85	55
DARK BRONZE	0.26	0.84	24
EVERGREEN	0.26	0.84	24
*GALVALUME PLUS	0.69	0.19	62
HARTFORD GREEN	0.25	0.85	23
LEADCOAT	0.37	0.82	38
MANSARD BROWN	0.30	0.85	30
MATTE BLACK	0.27	0.86	26
MEDIUM BRONZE	0.30	0.87	31
PATINA GREEN	0.46	0.85	51
PATRICIAN BRONZE	0.27	0.86	26
PREWEATHERED GALVALUME	0.30	0.79	27
REGAL BLUE	0.26	0.85	24
REGAL WHITE	0.68	0.86	82
ROMAN BLUE	0.26	0.85	24
SANDSTONE	0.54	0.86	63
SILVER METALLIC	0.57	0.78	64
SLATE GRAY	0.43	0.85	47
SURREY BEIGE	0.40	0.90	48
TERRA COTTA	0.35	0.85	36
TEXAS SILVER METALLIC	0.58	0.78	66

New color Gray

*Bare Acrylic Coated Galvalume

Notes:
- Solar Reflectance is a measure of the amount of solar energy that is immediately reflected from the surface.
- Solar Emissivity is the ability of a material to emit the residual heat back into the surrounding atmosphere.
- The Solar Reflectance Index (SRI) is a measure of the roof's ability to reject solar heat, considering reflectance, emissivity and convection across the surface.

General Notes:
- Inventory and color offering can change without notice. Please contact your McElroy representative to confirm availability.
- Other widths and gauges are available on some items.
- Galvalume® is McElroy's standard substrate. G90 is available upon request.
- McElroy Metal features Fluropon® PVDF coatings on all products.
- Fluropon is manufactured by Sherwin-Williams Corporation.

MCELROY METAL
CORPORATE OFFICE
1500 HAMILTON RD. · BOSSIER CITY, LA 71111

Website: www.mcelroymetal.com
E-mail: info@mcelroymetal.com

steelscape

MCELROY METAL

New color selected

Coated Steel Light Reflectance Values (LRV)

Kynar® PVDF	LRV*
Almond	61.96
Ash Gray	39.21
Autumn Red	10
Bone White	78.96
Brandywine	7.14
Brite Red	11.24
Buckskin	19.53
Charcoal	13.88
Clay	32.88
Colonial Red	9.32
Dark Bronze	7.44
Evergreen	9.56
Hartford Green	7.23
Ivory	66
Light Stone	53.35
Mansard Brown	7.71
Matte Black	5.91
Medium Bronze	11.54
Patina Green	25
Patrician Bronze	7.69
Regal Blue	9.22
Regal White	74.56
Roman Blue	17.04
Sandstone	56.96
Slate Gray	21.39
Surrey Beige	38.57
Terratone	14.65
Tudor Brown	9.33

Kynar 500® Classic Metallic	LRV*
Champagne Metallic	
Copper Penny Metallic	25.48
Leadcoat	
Silver Metallic	
Texas Silver Metallic	

Silicone Modified Polyester	LRV*
Antique Brown	10.11
Ash Gray	40.45
Autumn Red	10.81
Brite White	76.34
Charcoal	14.93
Evergreen	10.66
Ivory	67.28
Light Stone	52.71
Medium Clay	33.63
Patrician Bronze	8.3
Pewter Gray	28.32
Rawhide	38.47
Roman Blue	17.77
Surrey Beige	39.4
Tudor Brown	10.37

*LRV = Light Reflectance Value = Glare

***LRV, or Light Reflectance Value**, measures the amount of visible or usable light that reflects from a surface. LRV is expressed as a percentage from 0 to 100; the higher the number the more visible light that is reflected. Typically, lighter colors will have a higher value than dark colors, but texture can impact LRV as well. Rough textures tend to reflect less visible light. Gloss and sheen are two other terms used to describe visible reflection of a surface. Gloss is the measurement of visible light at a 60° angle from the surface, while sheen is measured at 85°. High gloss/sheen results in high glare or shine from a surface, while low gloss/sheen surfaces have a flat or matte appearance. Glare, often a concern with pre-painted roofs, is controlled by lowering the sheen value. **LRV is independent from SRI & SRV.**

Steelscape Kalama 222 West Kalama River Road Kalama, WA 98625-9420 USA
Phone 360-673-8200 Fax 360-673-8250

STRIATIONS

HIGHLY RECOMMENDED TO REDUCE *OIL CANNING

What are Striations?

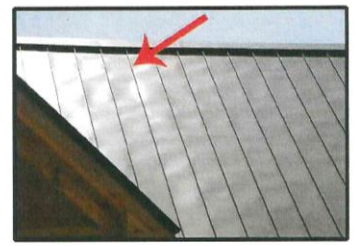
Striations are a pattern of linear grooves on the flat surface of the panel running parallel to the standing seam. These grooves provide anew aesthetic option and also serve to break theflat surface of the panel and to help reduce the perception of waviness on the panel commonly referred to as "oil canning".

*What is Oil Canning?

Oil canning is defined as the perceived waviness of a metal panel and is an inherent characteristic of light-gauge, cold-rolled flat metal products. In other words, it's a visual phenomenon that makes metal panels look wavy or somewhat distorted, especially in the broad, flat areas of a metal roof or wall system. Oil canning can occur with any type of metal material used in construction.

The severity of the waviness varies quite a bit depending on the color, finish, time of day, time of year, or even just the angle the metal is viewed from, which is why no real concrete method or scale for measuring it exists.

A silver lining of oil canning is that, if it does occur, it's just a cosmetic surface-level issue and doesn't affect the structural integrity of the panel system, and usually goes back to it's original look after severe weather changes revert back.



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TECHNICAL BULLETIN

2110 Enterprise Blvd • West Sacramento, CA 95691 www.ascprofiles.com

OIL CANNING

Description:

Oil Canning is an inherent characteristic of light gauge cold formed metal products, particularly products with broad flat areas. It is a visual phenomenon seen as waviness or distortion in the flat surfaces of metal roofing and siding products. Oil canning is subjective and is normally an aesthetic concern only and does not affect a products strength or performance. Environmental conditions such as temperature, time of day, annual seasons, amount and angle of sunlight (sunny vs. cloudy) can effect the appearance of oil canning.

Causes of oil canning:

Oil canning is caused by internal stresses within thin gauge metals. These stresses can be introduced during production of the coil and fabrication of the panels. Additionally, field installation conditions, installation techniques and construction tolerances can greatly impact the presence of oil canning. Thin gauge materials will not straighten out or compensate for irregular substrates or misaligned framing members.

1) **Metal Coil Production** - The process to transform steel into coil form can contribute to oil canning.

2) **Panel Fabrication** - The process of transforming steel coils into panels can induce oil canning.

3) **Misalignment of support system** – a support system with large tolerances may cause stresses on the panels as they are fixed to this surface. This stress on the panels can cause oil canning.

4) **Over engagement of panels** – Most panels allow for expansion and contraction by flexing of webs and slight room at the side joints. If the panels are pulled or pushed during engagement more than designed, the stress will cause deflection in the flat pan of the panel.

5) **Over driving of fasteners** – this operation causes stresses on the panel, particularly with concealed fastened panels connected directly into the support system. In addition, if the fasteners are not driven into the panels or clips at the same level of tension, normal expansion and contraction of the panels due to regular temperature changes can amplify visual waviness. This waviness caused by thermal forces (expansion and contraction) can appear and disappear daily as the sun rises and sets.

6) **Movement of primary structure** – if the primary structure of the building has excessive variation in deflection, racking, or drift, it can cause waviness in the flat of the panel, once installed. In addition, settlement of the primary structure can also cause oil canning. This oil canning could be temporary or permanent.

7) **Handling of panels** – The manner in which the panels are handled in the field can induce oil canning. Twisting the panels while lifting and removing from a bundle can induce a wavy appearance. Walking on panels can also cause oil canning.

Controlling or Minimizing Oil Canning:

1) **Coils**:
   a. Purchase quality coil stock within acceptable industry standards and tolerances.

2) **Panel Production**:
   a. Use sharpened and properly aligned slitting blades.
   b. Use tension leveler prior to roll forming.
   c. Keep roll forming equipment properly adjusted.
   d. Maintain a quality check for profile dimensions and angularity
   e. Provide proper handling, packaging, and transportation.

3) **Design Options**:
   a. Specify thicker gauge materials such as 22, 20, or 18 gauge vs. 24 gauge.
   b. Utilize narrow width panels or trim profiles
   c. Add striations or stiffening ribs in the flat of the panel or trim profiles.
   d. Specify low gloss paint finishes. Metallic colors tend to have a higher gloss and could emphasize waviness.
   e. Provide provisions to accommodate thermal stresses such as use of fasteners and clips that allow for expansion and contraction.
   f. Provide proper substrate for attachment.
   g. Orientation of panels (vertical vs. horizontal) may reduce the visual appearance of the waviness in the panels.

4) **Installation**:
   a. Properly align framing and assure the substrate is in-plane.
   b. Properly store and handle all materials.
   c. Follow approved Shop Drawing Details and industry standards.
   d. Only use materials supplied and/or approved by the manufacturer.
   e. Use proper installation tools, equipment, and techniques, including fasteners.
   f. Consider installing a foam backer rod to the back middle of flat surfaces to "pillow" the face.

Field Checking Panel Flatness:

There is no accepted Standard for field checking questioned flatness or oil canning. The following is a reasonable means to help determine the probable source or cause of oil canning. The intent is to systematically investigate the field conditions, handling, and installation process observing when the oil canning appears and therefore its most likely source or cause.

1) Examine the storage area and condition of the crated or packaged materials. Are the materials in a dry protected location, properly supported and retained in a natural manner that does not induce unusual twist or stress on the materials? **OBSERVE**

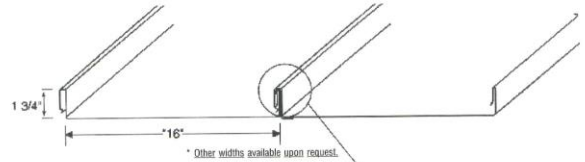
2) Remove a panel or two from its packaging. Orient it horizontally; allowing it to hang down on its side yet supported along its top rib approximately every 8 to 10 feet by workers or other aligned supports. **OBSERVE**

3) Have the panel(s) transported in the normal manner, both horizontally and vertically, to the location where they will be installed. **OBSERVE**

4) Lay the panel(s) flat and loosely on the substrate to which they will be installed without any clips or other means of attachment. **OBSERVE**

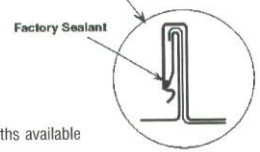
MEDALLION-LOK

Medallion-Lok is a concealed fastener architectural standing seam roof panel. The Medallion-Lok panels are easily installed over decking, utilizing metal clips. Medallion-Lok panels are ideally suited for decorative mansard, fascia and roofs.



SUBSTRATE:
24 Gauge Galvalume - Standard Surface. Other gauges and aluminium available upon request.

PANEL CONFIGURATIONS:
Striated, Ribbed or Flat Pan



PANEL WIDTH:
16", 18", (and 12" Available Upon Request)

PANEL LENGTH:
50' Standard Maximum Length. Longer lengths available upon request.
3' 9" Mimimum

PANEL HEIGHT:
1 3/4"

MINIMUM SLOPE:
3:12

CLIP SPACING:
See U.L. 90 Classifications - Roof Deck Construction for maximum clip spacing.

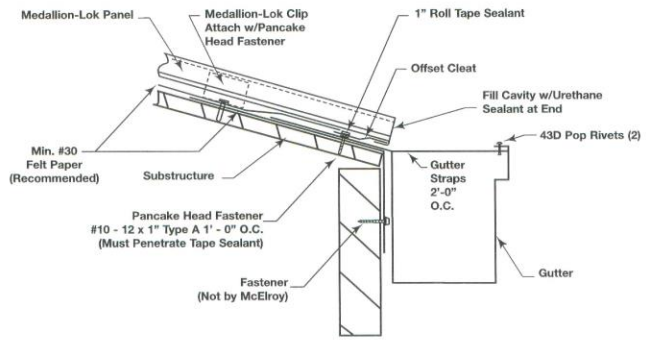
U.L. 90 Classifications - Roof Deck Construction:
U.L. Class 90 - 24 Ga. minimum panel on 4' - 0" maximum purlin spacing, per U.L. construction #255
U.L. Class 60 - 24 Ga. minimum panel on 5' - 0" maximum purlin spacing, per U.L. construction #255
U.L. Class 90 - 24 Ga. minimum panel with clips spaced 36" on center over plywood decking, per U.L. construction #343
U.L. Class 90 - 24 Ga. minimum panel with clips spaced 48" on center over rigid insulation on metal deck, per U.L. construction #468

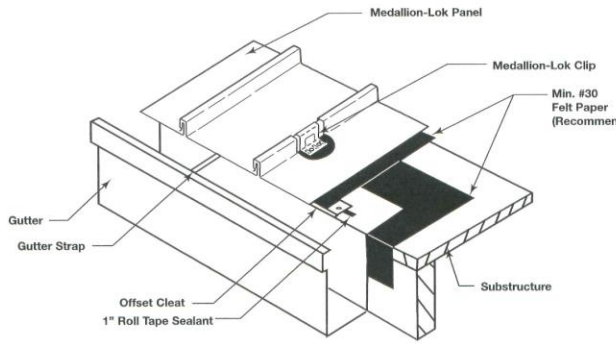
IMPACT RESISTANCE:
UL 2218 - IMPACT: CLASS 4 EXTERNAL FIRE: CLASS A

AIR AND WATER INFILTRATION:
Medallion-Lok systems have been tested in accordance with ASTM E1680 and ASTM E1646 procedures.

Oil canning (pan wave) of metal panels is inherent in the product and is not cause for panel rejection.

EAVE WITH STANDARD GUTTER

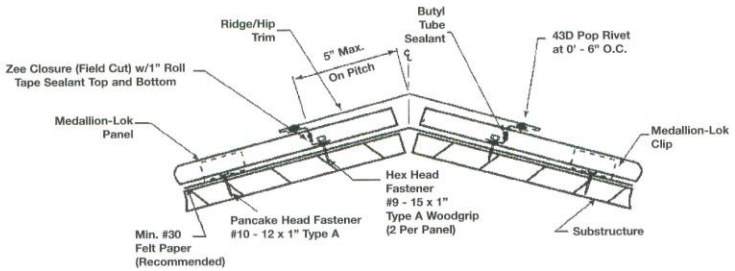


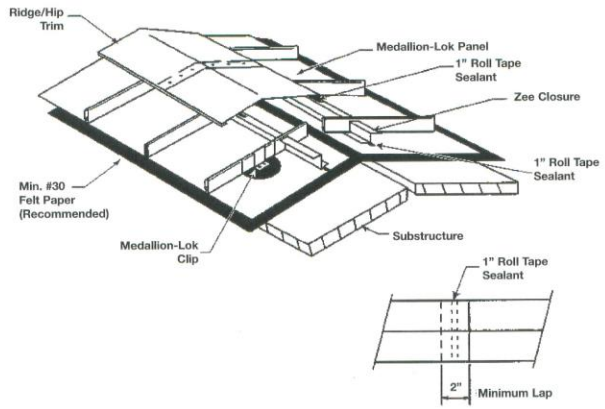


SUGGESTED FOR HIGH SNOW AREAS
SNOW GUARDS REQUIRED TO PREVENT DAMAGE CAUSED BY SLIDING SNOW.

NOTES:
1. Locate gutter and place a continuous run of 1" roll tape sealant in gutter leg.
2. Locate a gutter strap at 2'-0" on center. Place tape sealant on strap.
3. Locate offset cleat and fasten through cleat, strap, sealant, gutter and into the substructure.
4. Install panel. Allow clearance. Field cut 1 1/2" off leg of panel and hem panel.
5. Field bend gutter strap and attach to gutter with two (2) 43D pop rivets.

RIDGE / HIP



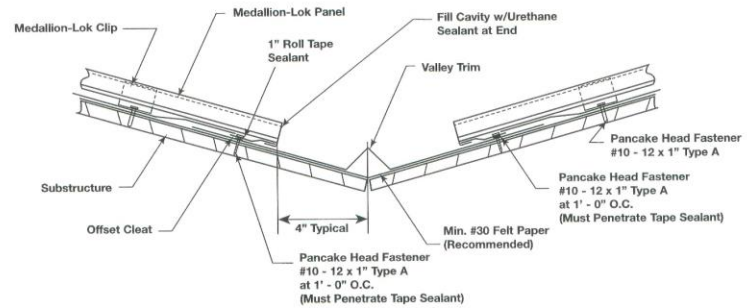


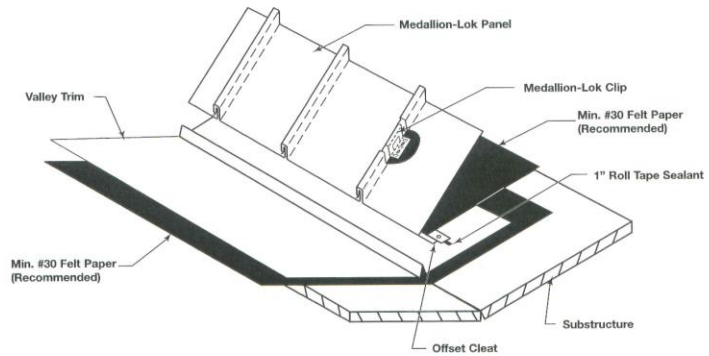
RIDGE TRIM LAP

NOTES:

1. Install panels with a clip approximately 1'-0" downhill on each side of the ridge or hip.
2. Apply a continuous run of 1" roll tape sealant between the panel legs about 5" maximum down from centerline of ridge.
3. Field cut and attach zee closure with two (2) #9 - 15 x 1" fasteners through closure, sealant, panel and into substructure. See detail for location dimension.
4. Apply tube sealant to zee closure and panel ribs.
5. Apply a continuous run of 1" roll tape sealant to top of "Z" closure.
6. Attach ridge/hip trim to zee closure with a 43D pop rivet on 6" centers.
7. Lap ridge/hip trim with 1" roll tape sealant and pop rivets as shown. Lap away from the prevailing wind direction. Attach with 43D pop rivets 4" on center maximum.

VALLEY

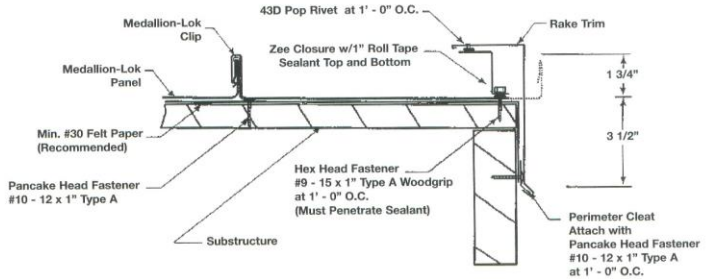


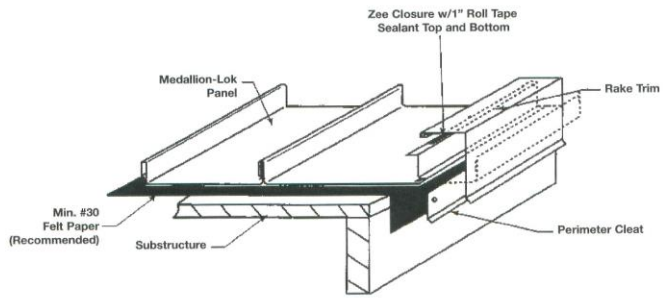


NOTES:

1. Locate valley trim over substructure.
2. Apply a continuous run of 1" roll tape sealant over valley trim and under offset cleat.
3. Locate offset cleat approximately 4" from center of valley trim and fasten through cleat, sealant, valley trim and into substructure.
4. Locate a clip 6" from end of panel.
5. Field cut 1 1/2" off leg of panel and hem panel. Allow clearance for thermal movement.

RAKE - TERMINATING OFF MODULE W/O WALL PANELS

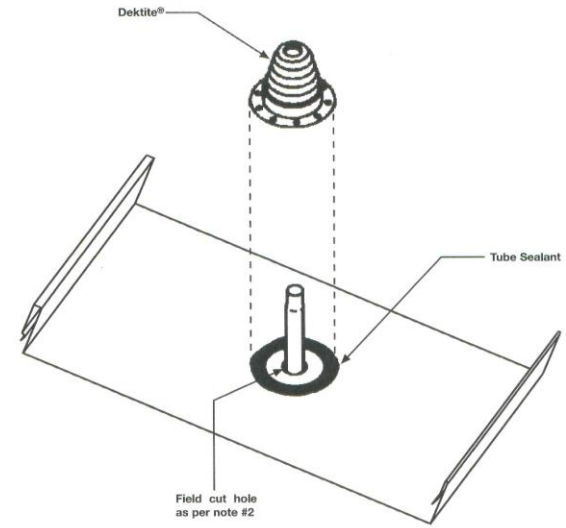




NOTES:

1. Field cut Medallion-Lok panel as required.
2. Apply a continuous run of 1" roll tape sealant under zee closure before fastening.
3. Attach zee closure with #9 - 15 x 1" fasteners on 1'-0" centers.
4. Apply a continuous run of 1" roll tape sealant over zee closure before fastening rake trim.
5. Fasten perimeter cleat as shown. Follow roof slope, and then attach rake trim.

ROOF JACK INSTALLATION



NOTES:

1. Before cutting hole in sheet, consider the best position to suit size of Dektite® selected.
2. Cut a neat hole with minimum clearance for pipe and install pipe.
3. Rubber sleeve should be a watertight fit on pipe. If rubber has to be cut, a neat hole 1/2" dia. less than outside pipe diameter should be cut in Dektite®. Use a sharp pair of scissors and avoid nicks.
4. Apply tube sealant to underside of base and, using water as lubricant, slide flashing along until it meets sheet.
5. Hand press Dektite® base on to sheet, pressing base firmly to sheet to avoid gaps, progressively drill and fasten to sheet. Fasten to panel with 1/4 - 14 x 7/8" LAPTEK ZAC Fasteners.

CORPORATE OFFICE | P.O. BOX 1148 SHREVEPORT, LA 71163-1148 | (318)747-8000 | FAX (318)747-8029

TECHNICAL BULLETIN

Issue Date: July 18, 2008 **Revised: January 2, 2014** **No. 05-308-08**

ASTM E1592 Wind Uplift Test

Medallion Lok 18" 24 Ga.

McElroy Metal had its Medallion Lok roof panel tested per ASTM E1592 between the dates of December 2, 2010 and April 23, 2012.

TEST RESULTS

Panel	Gauge	Span	Ultimate Load (psf)	Design Load (psf) Factor of Safety = 1.67 (AISI)
Medallion Lok 18"	24	1'-0"	107.5	64.4
Medallion Lok 18"	24	2'-0"	78.0	46.7
Medallion Lok 18"	24	5'-0"	45.1	27.0

Test Report: 10-004 Date: July 12, 2013

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TECHNICAL BULLETIN

Issue Date : June 1, 2006 **Revised: December 13, 2013** **No. 04-270-06**

Tests for Fire Resistance Ratings of Roof Covering Materials

UL 263 (ASTM E119 and NFPA 251)

The following products:

Mechanically attached metal roof panels "Multi-Rib", "Master-Lok 90", "R ", "Medallion-Lok ", "Medallion", "Medallion I Batten", "Medallion II Batten", "5V-Crimp", "Mega-Rib", "Max-Rib", "Maxima 212", "Maxima 216", "Maxima 218", "Maxima 318", "Maxima 324", "Metalogic-2000", "Mirage ", "U", "Maxima 1.5", "Mirage II", "Maxima ADV" and "Met-Tile", secured by steel anchor clips. Anchor clips are attached to a hat shaped member+ (minimum depth 1 in.) or a bearing plate ++.

Mechanically attached metal roof panels, identified as "ABC Permaseam Panel", "ABC SL Low Panel", "ABC JSM 200", "ABC Instaloc", "ABC SERIES 300" and "ABC 238T Roof Panel", secured by steel anchor clips. Anchor clips are attached to a hat shaped member+ (minimum depth 1 in.) or a bearing plate +++.

Have been approved for use in the following Underwriters Laboratories design numbers:

P225, P227, P230, P237, P250, P259, P265, P266, P268, P508, P510, P512, P514, P516, P518, P701, P711, P712, P713, P717, P719, P720, P722, P723, P726, P731, P732, P734, P739, P740, P801, P815, P819, P824, P825, and P828.

+Hat-shaped member to be a minimum of 16 gauge. The member will be fastened through the roof insulation to the steel roof deck with No. 14 self-drilling and/or self-tapping fasteners. Spacing to be determined by the structural loading requirements. In addition any compressible UL Classified glass fiber blanket insulation with or without a vapor-retarder facing may be used between the specified roof insulation and the metal roof panels.

++Bearing plate to be a minimum of 16 gauge. Member will be fastened through the roof insulation to the steel deck with No. 14 self-drilling and/or self-tapping fasteners.

+++Bearing plate to be a minimum of 24 gage . Member will be fastened through the roof insulation to the steel deck with No. 14 self-drilling and/or self-tapping fasteners.

CORPORATE OFFICE
SHREVEPORT, LOUISIANA
BOSSIER CITY, LA CLINTON, IL PEACHTREE CITY, GA MARSHALL, MI WINCHESTER, VA ADELANTO, CA LEWISPORT, KY MAUSTON, WI ASHBURN, GA MERKEL, TX SUNNYVALE, TX HOUSTON, TX

16”

McElroy's 1¾"x18" Panel is identical to the "Versa Span" panel that was used for the Testing Application. It absorbs the same rating as stated here.

sheathing

Underlayment: — One layer "VersaShield Underlayment", mecha... yment.
Ply Sheet (Optional): — Any UL Classified Type G1, G2 or G3 ba... ing
accessory.
Panels: — "EASY LOCK", "MS 200", "Versa Span", MS200-90C", "... teel
roofing panel, mechanically fastened.

8. **Deck:** C-15/32 or spaced sheathing **Incline:** Unlimited **Impact:** 4

Underlayment: — One layer "VersaShield Underlayment", mechanically fastened, or "CLAD-GARD SA-FR" self-adhered underlayment.
Panels: — "EASY LOCK", "MS 200", "Versa Span", MS200-90C", "T-Panel Narrow Panel", "MS150-S", "MS200-S" and "MS150, steel roofing panel, mechanically fastened.

9. **Deck:** NC **Incline:** Unlimited

Insulation (Optional): — Any UL Classified (except EPS), any thickness.
Surfacing: — "Clip-Lock 100", "Clip-Lock 150", "Premier-Lock 100", "Premier-Lock 150", steel roofing panels and "MS100" steel or copper roofing panels, mechanically fastened.

10. **Deck:** NC **Incline:** Unlimited

Barrier Board: — 5/8 in. min plywood.
Ply Sheet (Optional): — Any UL Classified Type G1, G2 or G3 base/ply sheet, Type 15 or 30 felt or UL Classified prepared roofing accessory.
Panels: — "Clip-Lock 100", "Clip-Lock 150", "Premier-Lock 100", "Premier-Lock 150", steel roofing panels and "MS100" steel or copper roofing panels, mechanically fastened.

11. **Deck:** NC **Incline:** Unlimited

Barrier Board: — 7/16 OBS or 5/8 in. plywood over polyisocyanurate insulation board or polyisocyanurate composite board, any thickness.
Ply Sheet (Optional): — Any UL Classified Type G1, G2 or G3 base/ply sheet, Type 15 or 30 felt or UL Classified prepared roofing accessory.
Panels: — "Clip-Lock 100", "Clip-Lock 150", "Premier-Lock 100", "Premier-Lock 150", steel roofing panels and "MS100" steel or copper roofing panels, mechanically fastened.

12. **Deck:** C-15/32 or spaced sheathing **Incline:** Unlimited

Barrier Board: — Georgia Pacific 1/4 in. min "DensDeck" board or 1/4 in. min United States Gypsum Co SECUROCK® Glass-Mat Roof Board (Type SGMRX), National Gypsum "DEXcell Glass Mat Roof Board" or "DEXcell FV Glass Mat Roof Board", CertainTeed Gypsum "GlasRoc"or 1/2 in. min UL classified gypsum board with all joints staggered a min of 6 in. from the plywood joints.
Ply Sheet (Optional): — Any UL Classified Type G1, G2 or G3 base/ply sheet, Type 15 or 30 felt or UL Classified prepared roofing accessory.
Panels: — "Clip-Lock 100", "Clip-Lock 150", "Premier-Lock 100", "Premier-Lock 150", steel roofing panels and "MS100" steel or copper roofing panels, mechanically fastened.

13. **Deck:** NC **Incline:** Unlimited

Insulation: — Polyisocyanurate, glass fiber, perlite or wood fiber, any thickness.
Ply Sheet (Optional): — Any UL Classified Type G1, G2 or G3 base/ply sheet, Type 15 or 30 felt or UL Classified prepared roofing accessory.
Panels: — "Clip-Lock 100", "Clip-Lock 150", "Premier-Lock 100", "Premier-Lock 150", steel roofing panels and "MS100" steel or copper roofing panels, mechanically fastened.

14. **Deck:** NC **Incline:** Unlimited

Barrier Board: — Georgia Pacific 1/4 in. min "DensDeck" board or 1/4 in. min United States Gypsum Co SECUROCK® Glass-Mat Roof Board (Type SGMRX), National Gypsum "DEXcell Glass Mat Roof Board" or "DEXcell FV Glass Mat Roof Board", CertainTeed Gypsum "GlasRoc"or 1/2 in min UL Classified gypsum board.
Ply Sheet (Optional): — Any UL Classified Type G1, G2 or G3 base/ply sheet, Type 15 or 30 felt or UL Classified prepared roofing accessory.
Panels: — "Clip-Lock 100", "Clip-Lock 150", Premier-Lock 100", "Premier-Lock 150", steel roofing panels and "MS100" steel or copper roofing panels, mechanically fastened.

15. **Deck:** C-15/32 or spaced sheathing **Incline:** Unlimited

Underlayment: — One layer "VersaShield Underlayment", mechanically fastened, or "CLAD-GARD SA-FR" self-adhered underlayment.
Ply Sheet (Optional): — Any UL Classified Type G1, G2 or G3 base/ply sheet, Type 15 or 30 felt or UL Classified prepared roofing accessory.
Panels: — "Clip-Lock 100", "Clip-Lock 150", "Premier-Lock 100", "Premier-Lock 150", steel roofing panels and "MS100" steel or copper roofing panels, mechanically fastened.

16. **Deck:** C-15/32 or spaced sheathing **Incline:** Unlimited

Underlayment: — One layer "VersaShield Underlayment", mechanically fastened, or "CLAD-GARD SA-FR" self-adhered underlayment.
Panels: — "Clip-Lock 100", "Clip-Lock 150", "Premier-Lock 100", "Premier-Lock 150", steel roofing panels and "MS100" steel or copper roofing panels, mechanically fastened.

CLAD-GARD™ SA-FR UNDERLAYMENT WITH NEW COREGARD™ TECHNOLOGY

UNMATCHED PROTECTION FOR YOUR BUILDING

Firestone Building Products is pleased to introduce the first of many products using our patented **CoreGard Technology**: CLAD-GARD™ SA-FR Underlayment with CoreGard™ Technology. This is **the only UL Class A underlayment on the market** today that brings water and fire protection to a whole new level. This one layer of underlayment out-performs the competition when it comes to keeping your building, and the occupants inside, safe.

Currently, you need additional material and labor to qualify for a UL Class A metal roof. With this product, you will **eliminate that additional cost** and still get the same, or better, quality waterproofing underlayment as the current Firestone CLAD-GARD underlayment products.

UL CLASS A FIRE PROTECTION

Installing a metal roof on your building does not give you a UL Class A roof. You must have a UL Class A system in order to have this rating. Many commercial buildings require UL Class A, especially in Educational, Medical, and Government facilities.

FEATURES AND BENEFITS

- Provides a UL Class A rated metal roofing system with one layer as opposed to multiple layers of competitive products
- A self-adhering, lightweight membrane that gives waterproofing protection keeping the contents of your building dry
- **>120 day exposure** allows this product to be installed even when the metal roofing products are not on-site
- Skid-resistant surface makes this product safe for installers when working on a sloped roof
- Significant cost savings on materials and labor due to a one-layer application as opposed to multiple layers to achieve UL Class A and waterproofing protection
- There is **no primer required** to install this product above 40 °F making it a quick and easy install
- Cost? Even if a UL Class A roof is not specified, you can provide the same UL Class A protection for the cost of a premium underlayment for roughly the same cost, which would be needed regardless

COREGARD™